

Curriculum vitae with track record (for established researchers)

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PERSONAL INFORMATION

*Family name, First name: Sverdrup-Thygeson, Anne

*Date of birth: 04.09.1966

*Sex: F

*Nationality: Norwegian

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*EDUCATION

- 2000 PhD in Conservation Biology. PhD thesis: "Forest management and conservation: Woodland key habitats, indicator species and tree retention", May 2000
Dep. of Biology, University of Oslo, Norway
- 1994 Master in Biology: May 1994
Dep. of Biology, University of Oslo, Norway
- 1988 Journalism, Honours Program
School of Journalism and Mass Communication, Univ. of Georgia, USA
- 1987 History (1 year study)
University of Oslo, Norway

*CURRENT AND PREVIOUS POSITIONS

- 2013- **Professor**, Norwegian University of Life Sciences, Norway
- 2011- **Scientific Advisor** (20%), Norwegian Institute for Nature Research (NINA)
- 2011- 2012 **Associate Professor**, Norwegian University of Life Sciences, Dep. of Ecology and Natural Resource Management
- 2009-2011 **Senior Research Ecologist**, Norwegian Institute for Nature Research (NINA)
- 2003-2009 Research Ecologist, NINA
- 1998-2003 **Senior Ecologist in NORSKOG**, Norwegian Forestry Assoc.
- 1994-1998 **Forest Ecologist in NORSKOG**, Norwegian Forestry Assoc.

FELLOWSHIPS AND AWARDS (if applicable)

- 2018 Received the coveted Bonnevie Award for outreach in biology and Svein Myrberget's memorial prize for outstanding work by NINA.
Nominated to the prestigious Brage book award for best popular science book of 2018.
- 2016 Nominated by the National authorities to be part of an Expert panel on criteria for good ecological condition in Norwegian ecosystems
- 2014 "Hjerkraftpris", Outreach award, The Norwegian Association of Researchers
- 2013, 2015 Awarded INA's award for Popular outreach and communication activities, Norwegian University of Life Sciences
- 1988 Received Dean's Award for Outstanding Scholarship, Univ. of Georgia, USA.

MOBILITY

- 1998 Research Fellow under Prof. David Lindenmayer at the Australian National Univ., Canberra

SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS (if applicable)

- 2011- PhDs: 2 finished, 2, soon 3, in process / Master Students: 27 finished, 4 in process

TEACHING ACTIVITIES (if applicable)

2011- Responsible for the course *Nature Conservation and Management in Norway* (bachelor level) and *Conservation Biology* (master level). Also lectures in several Bachelor level courses (Entomology, Ecological and economical significance of insects and fungi in forests, Introduction to Forest Management, Resource Economics and Planning in Forestry) as well as the master level courses Ecological Entomology, Multiple Use of Forests, and Bioenergy.

INSTITUTIONAL RESPONSIBILITIES (if applicable)

2012-present Member of the study program board for Nature Management, Member of internal phd committees, Deputy member on the Education Board, Institute of Ecology and Natural Resource management, NMBU.

COMMISSIONS OF TRUST (if applicable)

2019 Member of Norwegian Research Council Life Science Board (porteføljestyret livsvitenskap)
2019 Member of Fritjof Nansen Institute's Council
2018 Admin member of PhD committee, Erik Acanakwo, Norw Univ of Life Sciences
2017 Opponent at PhD defense, Franscesca Santaniello, SLU Uppsala
2017 Opponent at PhD defense, Klara Joelsson, SLU Umeå
2017 Member of examining committee Kerstin Varenius, SLU Uppsala
2015 Admin member of PhD committee, Ylva-Li Blanck, Norw Univ of Life Sciences
2015 Opponent at PhD defense Anne-Maarit Hekkala, Univ. of Oulu
2015 Member of examining committee at licentiate defence of David Bell, SLU, Umeå
2014 Member of examining committee at PhD defense of Diana Rubene, Swedish University of Agriculture Sciences (SLU Uppsala),
2012 Opponent at PhD defense of Jon Andersson, Swedish University of Agriculture Sciences SLU Umeå
2010 Member of examining committee at PhD defense of L. Djupström, Swedish University of Agriculture Sciences (SLU).
2008 Member of examining committee at PhD defense of H. Paltto, Univ of Gothenb.
2006 Opponent at PhD defense of K. Nitterus, Univ of Gothenb.

2000-present External evaluator for research applications to FORMAS (The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning) in 2015, for research applications to the Faroese Research Council in 2009, and for several evaluations for positions at Universities. In Editorial Board of Scandinavian Journal of Forest Research, Journal of Agricultural and Forest Entomology. Referee for Conservation Biology, Biological Conservation, Ecography, Canadian Journal of Forest Research, Scandinavian Journal of Forest Research, Landscape Ecology, Biodiversity and Conservation, PLOSONE, Forest Ecology and Management, Basic and Applied Ecology

MAJOR COLLABORATIONS (if applicable)

(Only recent and relevant collaboration mentioned)

- Norw Univ of Life Sciences NMBU, Norway: Tone Birkemoe, Siri Fjellheim, Mikael Olson, Erik Næsset, Hans Ole Ørka
- University of Oslo, Norway: Håvard Kausrud, Olav Skarpaas
- University of Tromsø: Rolf Ims, Ole Petter Vindstad
- Norwegian Inst for Nature Research NINA: Erik Framstad, Marianne Evju, Rannveig Jacobsen, Siri Olsen
- Technische Universität München, Germany: Sebastian Seibold
- Max Planck Institute for Chemical Ecology, Jena, German: Peter Biederman

CAREER BREAKS (if applicable)

June 1995- Dec 1995 Maternity leave, 6 months
Nov 1997-April 1998 Maternity leave, 6 months
June 2000- Dec 2000 Maternity leave, 6 months

TRACK RECORD

Major grants where I was main applicant

- BiodivERsA grant, project BioEssHealth, 4 000kNOK
- R&D grant, Norw. Environmental Agency, monitoring of the Selected Nature Type Hollow Oaks , 2016, 250 kNOK
- R&D grant, Norw. Environmental Agency, “Survey and monitoring of red-listed species” (ARKO), 2010: 6 000 kNOK
- Research grant, NRC, 2007, Complementary Hotspot Inventory: Evaluation: 970 kNOK
- Research grant, NRC, 2005, Importance of environmental measures in clear-cuts, vs forest reserves: 2 882 kNOK
- Research grant, NRC, 2004, Spruce as retention trees:1 100 kNOK
- Research grant, NRC, 2003, Evaluation of forest certification:1 388 kNOK
- Research grant, NRC, 2001, Cost efficiency, forestry, biodiversity measures: 1 600 kNOK
- Research grant, NRC, 2000, Landscape ecology in forest management, 940 kNOK
- Personal PhD grant, Norw. Research Council (NRC), 1997, Woodland key habitats, indicator species and forest history,1 437 kNOK

Project management

2019-	Norwegian partner and Norwegian PI in ERA-net BioEssHealth project
2011-present	PI for the Selected Nature Type Hollow Oaks in the National Program for Surveying and Monitoring Biodiversity
2011-2016	WP leader in NINA’s NFR-funded Strategic Research Program Management of biodiversity and ecosystem services in spatially structured landscapes
2012-2017	WP leader for WP3, Tools to sustain both production of timber and biodiversity of NFR project 225329/E40 «Sustainable utilization of forest resources in Norway».
1997-2012	PI of 7 research projects funded by the Norwegian Research Council: 113666/111 (Woodland key habitats, indicator species and forest history), 139594/110 (Landscape ecology in forest management), 156868/110 (An evaluation of the forest certification standard Living Forest), 140161/110 (Cost efficiency in the forestry sector’s biodiversity measures), 163230/110 (Spruce as retention trees), 182588/110 (Complementary Hotspot Inventory (MiS): Evaluation of process and criteria), 173927/110 (Retention or reserves? The relative importance of Living Forest environmental measures in clear-cuts, versus forest reserves)
2006-2011	PI for the project “Survey and monitoring of red-listed species” (ARKO), part of the National Program for Surveying and Monitoring Biodiversity
2009-2011	Main author of and Project manager for the follow-up of the 3 National Action Plans (Hollow oaks, the beetle <i>Osmoderma eremita</i> , and the beetle <i>Cucujus cinnaberinus</i>) and several other applied projects financed by DN or FM.
2011	Coordinator of NINA’s Strategic Institute Program Management of biodiversity and ecosystem services in spatially structured landscapes and leading the work package “Spatial dynamics of threatened species and their critical habitat resources”.

Outreach activities

>400 reports and popular science papers. I am part of a panel of scientists in a popular science radio program broadcasting every week, and run a science blog together with colleagues <http://blogg.nmbu.no/insektokologene/>. Since 2015, my outreach activities have typically included ~15 popular articles in newspapers with my byline, ~50 interviews in newspapers etc, ~30 appearances on national radio/TV, and 50-80 popular science talks, per year, in addition to an increasing number of appearances in media abroad (BBC Breakfast live, essay in Washington Post etc). In 2018 I published a popular science book on insects and their importance, [Insektenes planet](#), nominated for the Brage book award as best popular science book of 2018 and now translated into 23 languages. In 2019 and 2020 I published the children’s books [Insektenes hemmeligheter](#) and [Dovendyret og sommerfuglen](#).

Publications

48 scientific publications on Web of Science and **H-index: 17** (Web of Science)

>500 technical reports, book chapters, conference papers and popular science papers

- Birkemoe, T. & Sverdrup-Thygeson, A. 2011. Stable fly (*Stomoxys calcitrans*) and house fly (*Musca domestica*) densities: a comparison of three monitoring methods on pig farms. - *Journal of Pest Science* 84: 273-280. 10.1007/s10340-011-0352-7
- Birkemoe, T. & Sverdrup-Thygeson, A. 2015. Trophic levels and habitat specialization of beetles caught on experimentally added aspen wood: Does trap type really matter? - *Journal of Insect Conservation* 19: 163-173. 10.1007/s10841-015-9757-6
- Engen, S., Saether, B. E., Sverdrup-Thygeson, A., Grotan, V. & Odegaard, F. 2008. Assessment of species diversity from species abundance distributions at different localities. - *Oikos* 117: 738-748. 10.1111/j.0030-1299.2008.16466.x
- Evju, M., Blumentrath, S., Skarpaas, O., Stabbetorp, O. E. & Sverdrup-Thygeson, A. 2015. Plant species occurrence in a fragmented grassland landscape: the importance of species traits. - *Biodiversity and Conservation* 24: 547-561. 10.1007/s10531-014-0835-y
- Evju, M. & Sverdrup-Thygeson, A. 2016. Spatial configuration matters: a test of the habitat amount hypothesis for plants in calcareous grasslands. - *Landscape Ecology* 31: 1891-1902. 10.1007/s10980-016-0405-7
- Fedrowitz, K., Koricheva, J., Baker, S. C., Lindenmayer, D. B., Palik, B., Rosenvald, R., Beese, W., Franklin, J. F., Kouki, J., Macdonald, E., Messier, C., Sverdrup-Thygeson, A. & Gustafsson, L. 2014. Can retention forestry help conserve biodiversity? A meta-analysis. - *Journal of Applied Ecology* 51: 1669-1679. 10.1111/1365-2664.12289
- Fossestøl, K. O. & Sverdrup-Thygeson, A. 2009. Saproxylid beetles in high stumps and residual downed wood on clear-cuts and in forest edges. - *Scandinavian Journal of Forest Research* 24: 403-416. 10.1080/02827580903143871
- Gillespie, M. A. K., Birkemoe, T. & Sverdrup-Thygeson, A. 2017. Interactions between body size, abundance, seasonality, and phenology in forest beetles. - *Ecology and Evolution* 7: 1091-1100. 10.1002/ece3.2732
- Gough, L. A., Birkemoe, T. & Sverdrup-Thygeson, A. 2014. Reactive forest management can also be proactive for wood-living beetles in hollow oak trees. - *Biological Conservation* 180: 75-83. 10.1016/j.biocon.2014.09.034
- Gough, L. A., Sverdrup-Thygeson, A., Milberg, P., Pilskog, H. E., Jansson, N., Jonsell, M. & Birkemoe, T. 2015. Specialists in ancient trees are more affected by climate than generalists. - *Ecology and Evolution* 5: 5632-5641. 10.1002/ece3.1799
- Gustafsson, L., Baker, S. C., Bauhus, J., Beese, W. J., Brodie, A., Kouki, J., Lindenmayer, D. B., Lohmus, A., Pastur, G. M., Messier, C., Neyland, M., Palik, B., Sverdrup-Thygeson, A., Volney, W. J. A., Wayne, A. & Franklin, J. F. 2012. Retention Forestry to Maintain Multifunctional Forests: A World Perspective. - *Bioscience* 62: 633-645. 10.1525/bio.2012.62.7.6
- Gustafsson, L., Kouki, J. & Sverdrup-Thygeson, A. 2010. Tree retention as a conservation measure in clear-cut forests of northern Europe: a review of ecological consequences. - *Scandinavian Journal of Forest Research* 25: 295-308. 10.1080/02827581.2010.497495
- Halbritter, A. H., et al. 2020. The handbook for standardized field and laboratory measurements in terrestrial climate change experiments and observational studies (ClimEx). - *Methods in Ecology and Evolution* 11: 22-37. 10.1111/2041-210x.13331
- Jacobsen, R. M., Birkemoe, T. & Sverdrup-Thygeson, A. 2015. Priority effects of early successional insects influence late successional fungi in dead wood. - *Ecology and Evolution* 5: 4896-4905. 10.1002/ece3.1751
- Jacobsen, R. M., Kausarud, H., Sverdrup-Thygeson, A., Bjorbwkm, M. M. & Birkemoe, T. 2017. Wood-inhabiting insects can function as targeted vectors for decomposer fungi. - *Fungal Ecology* 29: 76-84. 10.1016/j.funeco.2017.06.006
- Jacobsen, R. M., Sverdrup-Thygeson, A. & Birkemoe, T. 2015. Scale-specific responses of saproxylid beetles: combining dead wood surveys with data from satellite imagery. - *Journal of Insect Conservation* 19: 1053-1062. 10.1007/s10841-015-9821-2
- Jacobsen, R. M., Sverdrup-Thygeson, A., Kausarud, H. & Birkemoe, T. 2018. Revealing hidden insect - fungus interactions: moderately specialized, modular and anti-nested detritivore networks. - *Proceedings of the Royal Society B-Biological Sciences* 285. 10.1098/rspb.2017.2833
- Jacobsen, R. M., Sverdrup-Thygeson, A., Kausarud, H., Mundra, S. & Birkemoe, T. 2018. Exclusion of invertebrates influences saprotrophic fungal community and wood decay rate in an experimental field study. - *Functional Ecology* 32: 2571-2582. 10.1111/1365-2435.13196
- Komonen, A., Jonsell, M., Okland, B., Sverdrup-Thygeson, A. & Thunes, K. 2004. Insect assemblage associated with the polypore *Fomitopsis pinicola*: a comparison across Fennoscandia. - *Entomologica Fennica* 15: 102-112.
- Lindenmayer, D. B., Franklin, J. F., Lohmus, A., Baker, S. C., Bauhus, J., Beese, W., Brodie, A., Kiehl, B., Kouki, J., Pastur, G. M., Messier, C., Neyland, M., Palik, B., Sverdrup-Thygeson, A., Volney, J., Wayne, A. & Gustafsson, L. 2012. A major shift to the retention approach for forestry can help resolve some global forest sustainability issues. - *Conservation Letters* 5: 421-431. 10.1111/j.1755-263X.2012.00257.x

- Midtgaard, F., Rukke, B. A. & Sverdrup-Thygeson, A. 1998. Habitat use of the fungivorous beetle *Bolitophagus reticulatus* (Coleoptera : Tenebrionidae): Effects of basidiocarp size, humidity and competitors. - *European Journal of Entomology* 95: 559-570.
- Nilsen, E. B., Finstad, A. G., Naesje, T. F. & Sverdrup-Thygeson, A. 2013. Using mass scaling of movement cost and resource encounter rate to predict animal body size-Population density relationships. - *Theoretical Population Biology* 86: 23-28. 10.1016/j.tpb.2013.03.003
- Norden, J., Astrom, J., Josefsson, T., Blumentrath, S., Ovaskainen, O., Sverdrup-Thygeson, A. & Norden, B. 2018. At which spatial and temporal scales can fungi indicate habitat connectivity? - *Ecological Indicators* 91: 138-148. 10.1016/j.ecolind.2018.03.062
- Pilskog, H. E., Birkemoe, T., Evju, M. & Sverdrup-Thygeson, A. 2020. Species composition of beetles grouped by host association in hollow oaks reveals management-relevant patterns. - *Journal of Insect Conservation* 24: 65-86. 10.1007/s10841-019-00210-5
- Pilskog, H. E., Birkemoe, T., Framstad, E. & Sverdrup-Thygeson, A. 2016. Effect of Habitat Size, Quality, and Isolation on Functional Groups of Beetles in Hollow Oaks. - *Journal of Insect Science* 16. 10.1093/jisesa/iev145
- Pilskog, H. E., Sverdrup-Thygeson, A., Evju, M., Framstad, E. & Birkemoe, T. 2018. Long-lasting effects of logging on beetles in hollow oaks. - *Ecology and Evolution* 8: 10126-10137. 10.1002/ece3.4486
- Roed, K. H., Birkemoe, T., Sverdrup-Thygeson, A., Horak, J., Midthjell, L. & Leinaas, H. P. 2014. Isolation and characterization of ten microsatellite loci for the wood-living and threatened beetle *Cucujus cinnaberinus* (Coleoptera: Cucujidae). - *Conservation Genetics Resources* 6: 641-643. 10.1007/s12686-014-0164-1
- Skarpaas, O., Blumentrath, S., Evju, M. & Sverdrup-Thygeson, A. 2017. Prediction of biodiversity hotspots in the Anthropocene: The case of veteran oaks. - *Ecology and Evolution* 7: 7987-7997. 10.1002/ece3.3305
- Skarpaas, O., Diserud, O. H., Sverdrup-Thygeson, A. & Odegaard, F. 2011. Predicting hotspots for red-listed species: multivariate regression models for oak-associated beetles. - *Insect Conservation and Diversity* 4: 53-59. 10.1111/j.1752-4598.2010.00109.x
- Sverdrup-Thygeson, A. 2001. Can 'continuity indicator species' predict species richness or red-listed species of saproxylic beetles? - *Biodiversity and Conservation* 10: 815-832. 10.1023/a:1016679226554
- Sverdrup-Thygeson, A. 2002. Key habitats in the Norwegian production forest: A case study. - *Scandinavian Journal of Forest Research* 17: 166-178. 10.1080/028275802753626818
- Sverdrup-Thygeson, A. 2009. Oaks in Norway: Hotspots for red-listed beetles (Coleoptera). - I Buse, J., Alexander, K. N. A., Ranius, T. & Assmann, T., red. *Saproxylic Beetles: Their Role and Diversity in European Woodland and Tree Habitats* - Proceedings of the 5th Symposium and Workshop. Pensoft Series Faunistica. S. 13-26.
- Sverdrup-Thygeson, A. 2010. Colonization of experimentally arranged resource patches - a case study of fungivorous beetles. - *Entomologica Fennica* 21: 139-150. 10.33338/ef.3836
- Sverdrup-Thygeson, A., Bendiksen, E., Birkemoe, T. & Larsson, K. H. 2014. Do conservation measures in forest work? A comparison of three area-based conservation tools for wood-living species in boreal forests. - *Forest Ecology and Management* 330: 8-16. 10.1016/j.foreco.2014.06.036
- Sverdrup-Thygeson, A. & Birkemoe, T. 2009. What window traps can tell us: effect of placement, forest openness and beetle reproduction in retention trees. - *Journal of Insect Conservation* 13: 183-191. 10.1007/s10841-008-9141-x
- Sverdrup-Thygeson, A., Borg, P. & Bergsaker, E. 2008. A comparison of biodiversity values in boreal forest regeneration areas before and after forest certification. - *Scandinavian Journal of Forest Research* 23: 236-243. 10.1080/02827580802158228
- Sverdrup-Thygeson, A., Gustafsson, L. & Kouki, J. 2014. Spatial and temporal scales relevant for conservation of dead-wood associated species: current status and perspectives. - *Biodiversity and Conservation* 23: 513-535. 10.1007/s10531-014-0628-3
- Sverdrup-Thygeson, A. & Ims, R. A. 2002. The effect of forest clearcutting in Norway on the community of saproxylic beetles on aspen. - *Biological Conservation* 106: 347-357. 10.1016/s0006-3207(01)00261-0
- Sverdrup-Thygeson, A. & Ims, R. A. 2002. The effect of forest clearcutting in Norway on the community of saproxylic beetles on aspen (vol 108, pg 377 2002). - *Biological Conservation* 108: 377-378. 10.1016/s0006-3207(02)00142-8
- Sverdrup-Thygeson, A. & Lindenmayer, D. B. 2003. Ecological continuity and assumed indicator fungi in boreal forest: the importance of the landscape matrix. - *Forest Ecology and Management* 174: 353-363. 10.1016/s0378-1127(02)00043-9
- Sverdrup-Thygeson, A. & Midtgaard, F. 1998. Fungus-infected trees as islands in boreal forest: Spatial distribution of the fungivorous beetle *Bolitophagus reticulatus* (Coleoptera, Tenebrionidae). - *Ecoscience* 5: 486-493. 10.1080/11956860.1998.11682486
- Sverdrup-Thygeson, A., Orka, H. O., Gobakken, T. & Naeset, E. 2016. Can airborne laser scanning assist in mapping and monitoring natural forests? - *Forest Ecology and Management* 369: 116-125. 10.1016/j.foreco.2016.03.035
- Sverdrup-Thygeson, A., Skarpaas, O., Blumentrath, S., Birkemoe, T. & Evju, M. 2017. Habitat connectivity affects specialist species richness more than generalists in veteran trees. - *Forest Ecology and Management* 403: 96-102. 10.1016/j.foreco.2017.08.003

- Sverdrup-Thygeson, A., Skarpaas, O. & Odegaard, F. 2010. Hollow oaks and beetle conservation: the significance of the surroundings. - *Biodiversity and Conservation* 19: 837-852. 10.1007/s10531-009-9739-7
- Sverdrup-Thygeson, A., Sogaard, G., Rusch, G. M. & Barton, D. N. 2014. Spatial Overlap between Environmental Policy Instruments and Areas of High Conservation Value in Forest. - *Plos One* 9. 10.1371/journal.pone.0115001
- Timonen, J., Siitonen, J., Gustafsson, L., Kotiaho, J. S., Stokland, J. N., Sverdrup-Thygeson, A. & Monkkonen, M. 2010. Woodland key habitats in northern Europe: concepts, inventory and protection. - *Scandinavian Journal of Forest Research* 25: 309-324. 10.1080/02827581.2010.497160
- Vindstad, O. P. L., Schultze, S., Jepsen, J. U., Biuw, M., Kapari, L., Sverdrup-Thygeson, A. & Ims, R. A. 2014. Numerical Responses of Saproxylic Beetles to Rapid Increases in Dead Wood Availability following Geometrid Moth Outbreaks in Sub-Arctic Mountain Birch Forest. - *Plos One* 9. 10.1371/journal.pone.0099624
- Wetherbee, R., Birkemoe, T., Skarpaas, O. & Sverdrup-Thygeson, A. 2020. Hollow oaks and beetle functional diversity: Significance of surroundings extends beyond taxonomy. - *Ecology and Evolution* 10: 819-831. 10.1002/ece3.5940